T C R

2003 TRANSPORTATION CONCEPT REPORT

DISTRICT 11 Planning Division
California Department of Transportation

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STATE ROUTE 11 AREA MAP

SR-11 LOCATION MAP

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2020 Transportation Concept

Table S-1 shows the specific 2020 Transportation Concept facility information for the proposed State Route 11 (SR-11).

TABLE S-1

2020 TRANSPORTATION CONCEPT

Segment/County/ Post Mile	Location	# of Lanes/ Facility Type	ADT	Peak Hour V/C Ratio	Operating LOS	2020 Concept LOS
1 SD 0.0 – 2.7	Jct. SR-905/125 to proposed East Otay Mesa POE	4F	23,000 – 40,500	0.29 – 0.50	0.75	D

ADT= Average Daily Traffic V/C= Volume Capacity LOS= Level of Service 4F= 4 Lane Freeway

Sources: SANDAG Cities/County 2020 Forecast and SANDAG U.S/Mexico Crossborder Model.

NOTE: Peak Hour V/C Ratios and Peak Hour Operating LOS are based on sketch level planning analysis and are only intended for use as a general planning guidelines. Results may vary based on utilization of different traffic analysis methodologies.

2020 Transportation Concept Facility Improvements

This report discusses the proposed construction of SR-11, a new four lane facility beginning at the SR-125/SR-905 interchange and connecting to the proposed East Otay Mesa Port of Entry (POE). In addition, a truck bypass road between the proposed East Otay Mesa POE and the existing Otay Mesa Commercial Vehicle State Enforcement Facility is also planned.

Project Study Report (PSR) level studies began in October 2000. A decision on the application for a new land port of entry at East Otay Mesa is anticipated to coincide with environmental clearance. The environmental study phase of this project has been initiated. The design and right-of-way acquisition phases of proposed SR-11 would take approximately three years, although a portion of this work may be concurrent with the environmental process phase. Construction of SR-11 would take approximately another two to three years.

Table S-2 compares the improvements proposed in this Transportation Concept Report (TCR) with the San Diego Association of Governments' (SANDAG) 2030 Mobility Plan.

TABLE S-2

COMPARISON WITH SANDAG 2030 MOBILITY PLAN

Segment	Location	Improvement Description	In SANDAG 2030 Revenue Constrained Plan?	In SANDAG 2030 Mobility Network Plan?	In SANDAG Unconstrained Revenue Plan?
1	Jct. SR-905/ 125 to proposed East Otay Mesa POE	Construct 4F	yes	yes	yes

Introduction and Statement of Planning Intent

This Transportation Concept Report (TCR) is a planning document which describes the Department's basic approach to the development of a given highway corridor. Considering financial constraints and projected travel demand, this TCR establishes a 20 year transportation planning concept for State Route 11 (SR-11) and identifies modal transportation options needed to achieve the concept. The concept includes operating Levels of Service (LOS), modal improvements, and new technologies. The TCR also considers potential long term needs for the corridor beyond the 20 year planning period. The long term needs focus on the Post-2020 Ultimate Transportation Corridor (UTC).

The TCR is a preliminary planning document that leads to subsequent programming and the project development process. The specific nature of improvements (i.e., number of lanes, access control, etc.) may change in later project development stages, with final determinations made during the Project Study Report (PSR), Project Report (PR) or design phases.

Each TCR must be viewed as an integral part of a planned system. The TCR is based on the completion of the 20 year system. The system has been developed to meet anticipated travel demand generated from regional growth forecasts. Removal of any portion of a route from the system could adversely affect travel on parallel or intersecting routes.

The TCR is prepared by Caltrans District 11 staff in cooperation with local and regional agencies. The TCR is updated as necessary as conditions change or new information is obtained.

The focus of the TCR is the 2020 Transportation Concept, which includes State highway, transit, system management and travel reduction, nonmotorized, Intelligent Transportation System, goods movement, international border, aviation, tourism, and environmental components.

LEVEL OF SERVICE (LOS) DEFINITIONS

LOS	V/C	Congestion Delay	Traffic Description
D	0.66 - 0.85	Minimal to Substantial	Approaches unstable flow, heavy substantial volumes, very limited freedom to maneuver.

LOS is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. An LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, comfort, convenience, and safety.

Route Description

SR-11 is an unconstructed 4.3 - 5 kilometer (2.7-3.1 mile) four lane freeway that will connect the SR-125/SR-905 interchange to the proposed East Otay Mesa Port of Entry. At the border crossing, it will provide a connection to the Tijuana 2000 corridor which will provide direct connections to the Tijuana-Tecate toll road and the free roads as well as to the Tijuana-Ensenada toll road. Interchanges for SR-11 are proposed for Enrico Fermi Road and Airway Road, as is a truck bypass road between the proposed East Otay Mesa POE and the existing Otay Mesa Commercial Vehicle Enforcement Facility.

Purpose of Route

The San Diego/Tijuana region is currently the largest urban border area along the U.S.-Mexico border, with a combined population of about 4 million people. This combined population is anticipated to grow to about 7 million people by the year 2020. Most of the growth south of the international border will occur in the northeastern, eastern and southeastern areas of Tijuana and will be directly served by SR-11 and the proposed POE.

The San Ysidro POE is the busiest land crossing in the world, with over 45,000 vehicular northbound crossings each weekday and over 65,000 each weekend day. Waits to cross the border are typically 30 minutes to one hour on weekdays and one to two hours on weekends. Passenger vehicle traffic is anticipated to double from 30 million in 1999 (both ways) to 62 million in 2020, with its consequent impacts on queue lengths and peak hour durations. The San Ysidro POE does not handle commercial vehicle traffic.

The Otay Mesa POE handles vehicular, bus, pedestrian plus all commercial traffic. The Otay Mesa POE is the third ranked POE along the U.S.-Mexico border in terms of value of goods crossing the border.

SR-11 is needed to alleviate existing cross-border congestion at the San Ysidro and Otay Mesa POE's and to accommodate future vehicular and commercial traffic. The purpose of SR-11 is to allow faster trips by reducing travel time. The proposed East Otay Mesa POE will provide access to the State highway system via SR-11 and also provide a link to improved transportation facilities in Mexico, including the Tijuana 2000 corridor. Further detailed information about the proposed POE is included in the Caltrans document entitled New Port of Entry Application at East Otay Mesa, San Diego,CA (February 2001).

Existing Facility Classifications

The federal functional classification of the proposed SR-11 is expected to be Other Principal Arterial - Freeway or Expressway.

The National Highway System (NHS) Designation Act of 1995 was passed into law by Congress in November 1995. The purposes of the NHS are to provide an integrated national highway system that serves both urban and rural America; to connect major population centers, international border crossings, ports, airports, public transportation facilities, and other major travel destinations; to meet national defense requirements; and to serve interstate and interregional travel. The NHS includes the Interstate System routes. In Caltrans District 11, the NHS totals 789.0 km (490.3 miles). All of the proposed SR-11 should be included in the NHS.

It is expected that SR-11 may be designated as a State Terminal Access Route connecting to the National Network for Surface Transportation Assistance Act (STAA) trucks.

To emphasize corridors that are most essential to the California economy in terms of national and international trade, a transportation network known as the Intermodal Corridors of Economic Significance (ICES) has been developed. To be included in the ICES system, a route should provide access between major freight intermodal facilities and serve freight traffic to and from the North American Free Trade Agreement countries of Canada and Mexico, as well as the Pacific Rim and other U.S. trade markets. The route should carry high interstate and international freight volumes important to the economy of California. SR-11 may be eligible to join the ICES system.

SR-11 is not expected to be part of the California State Scenic Highway System.

For maintenance programming purposes, the State Highway System has been categorized as Class 1, 2, and 3 highways based on the Maintenance Service Level (MSL) descriptive definitions. MSL 1 highways consist of Interstate highways, freeways, and other principal arterial routes with high traffic volumes of over 5,000 vehicles per day. It is expected that SR-11 will be classified as an MSL 1 route.

Existing Facility

SR-11 is a proposed, unconstructed route. The majority of the route will traverse the East Otay Mesa Specific Plan Area. Current access to the East Otay Mesa area is limited to three two lane roads: Otay Mesa Road, Alta Road and Harvest Road. Access roads from the west and north include I-805, SR-905/Otay Mesa Road, and Otay Valley Road/Heritage Road. Access from the south is limited to Blvd. Garita de Otay at the existing Otay Mesa POE. These existing arterials are currently impacted by local traffic congestion.

A variety of preliminary planning actions and studies have been developed as a prelude to the construction of the route.

Milestones in the development of SR-11 and the East Otay Mesa POE include:

1994

SR-11, from the future POE to the SR 905/ SR-125 interchange, is added to the State Highway System.

Wilbur Smith Associates completed Element 2 of the U.S.-Mexico International Border Transportation Case Study.

1997

Caltrans District 11 Advanced Planning Branch developed the Route 11 Corridor Preservation Report.

Caltrans District 11 System Planning Branch developed the first Transportation Concept Report for Route 11.

1998

A letter of intent was signed in 1998 by the States of California and Baja California, the Municipalities of Tijuana and Playas de Rosarito, the County of San Diego, the San Diego Association of Governments (SANDAG), and the City of San Diego.

1999

Assembly Bill 1650, chaptered on 10/10/99, added SR-11 to the California freeway and expressway system.

The SR-11 corridor is designated in the Otay Mesa Community Plan as part of the City of San Diego's General Plan, and was added on December 15, 1999, to the Circulation Element of the County of San Diego's General Plan.

2000

Caltrans District 11 completed the Project Study Report for SR-11 on September 16, 2000.

The California Transportation Commission (CTC) programmed 8 million dollars for the preparation of the environmental document for the new POE, SR-11, and the truck by pass road accessing the California Vehicle Enforcement Facility on December 6, 2000.

2001

Caltrans submitted the Presidential Authorization Application to the U.S. Department of State on February 20, 2001.

2002

Caltrans, in conjunction with Value Management Strategies, Inc., completed a final SR-11/New Otay Mesa East Port of Entry Value Analysis Report.

Socio-Economics

This section includes a land use/corridor growth and a demographic analysis for existing and future conditions in the SR-11 corridor area.

Corridor Growth and Demographics

The San Diego Association of Government's (SANDAG) 2020 Series 9 Regional Growth Forecast anticipates a population growth change in the San Diego region from 3.0 million people in 2000 to 3.9 million people in 2020. This represents a 30 percent increase in population. Series 9 also projects the housing stock in the San Diego region will increase from 1.1 million units in 2000 to 1.4 million units in 2020, a 27.2 percent change. The total labor force is also expected to grow from 1.4 million workers in 2000 to 1.8 million workers in 2020 for an increase of 28.5 percent. These growth changes will create a demand for additional public facilities. Complementary land use and transportation improvements will be required to accommodate forecasted growth, and to provide the additional public facilities.

The Otay Mesa communities and Tijuana have all experienced rapid growth since 1980. The population of the combined San Diego-Tijuana border region was 3.5 million in 1993 and 4.3 million in 2000. The forecasted 2020 population is expected to be 7.4 million. This growth has been stimulated by the change of land use from thousands of acres of farmland to the current land use designations of industrial/commercial and residential. Otay Mesa has been designated by the City of San Diego to be a primary industrial and commercial center for the San Diego region.

According to SANDAG, the South Bay Sub-regional Area (SRA) will experience rapid growth. Table 1 compares the population and employment increases expected in the San Diego region and in the South Bay SRA over the next 20 years. The population of the South Bay SRA is expected to double to over 252,000; this growth in population is higher than the average population increase in the San Diego region. Similarly, 8% of the San Diego region's housing units growth will be in the South Bay; 9.6% of the San Diego region's new employment will be in South Bay.

Existing Land Use

Existing land, particularly in the East Otay Mesa Specific Plan Area, through which SR-11 will traverse, is mostly undeveloped with the exception of a 15.4 hectare (38 acre) portion which includes an auto storage yard, nine dwelling units and associated sheds or other buildings, several dirt roads, few paved roads, a San Diego Gas and Electric transmission line running through a 36.6 meter (120 foot) easement, and some smaller commercial and industrial developments.

On the Mexican side of the border, there is industrial development near the existing Otay Mesa POE. Moving east, agricultural land use predominates with some residential development in the El Escondido area near the proposed East Otay Mesa POE. There is a growing industrial center southeast of the proposed POE in the El

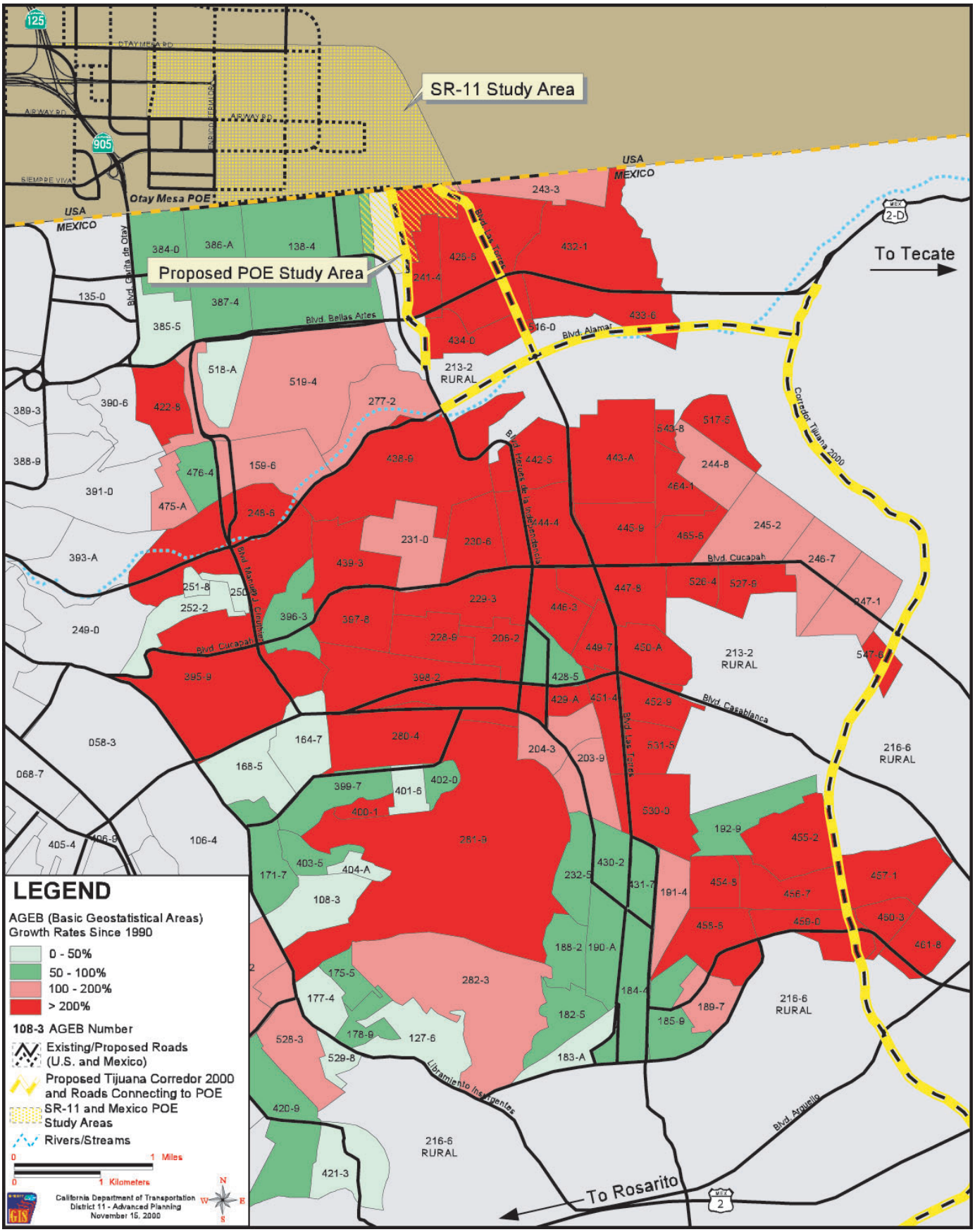
TABLE 1

POPULATION, HOUSING AND EMPLOYMENT GROWTH

Year	Total Population	% Change from Base Year	Total Housing Units	% Change from Base Year	Total Employment	% Change from Base Year
SOUTH BAY (SRA 22)						
1995	119,853	NA	33,810	NA	23,283	NA
2005	157,324	31.3%	41,938	24.0%	49,153	111.0%
2010	187,328	56.2%	50,002	47.9%	54,033	132.1%
2020	252,687	110.8%	67,372	99.2%	74,476	219.8%
SAN DIEGO						
1995	2,669,200	NA	996,684	NA	1,186,837	NA
2005	3,223,474	20.8%	1,153,736	15.8%	1,513,234	27.5%
2010	3,437,697	28.8%	1,245,057	24.9%	1,565,824	31.9%
2020	3,853,297	44.4%	1,404,231	40.9%	1,721,651	45.1%

Source: SANDAG

Population Growth in the Eastern Tijuana Area



Florido area. The Tijuana census tracts south of the proposed SR-11 and the East Otay Mesa POE have generally experienced a 20% annual growth rate between 1990 and 2000.

Rapid development in the area is also partly due to the establishment of a five-site Foreign Trade Zone in Otay Mesa and the proximity to the maquiladora manufacturing/assembly industry just across the border in Mexico. In a typical twin plant (maquiladora) arrangement, a company's warehouse/distribution center is located in the Foreign Trade Zone, where goods are not subject to United States Customs duties or excise taxes. Products are assembled and packaged in a Tijuana maquiladora plant, and the plant benefits from the available labor force in Mexico. Maquiladora employment in the San Diego-Tijuana border region was 127,000 in 1993. This number grew to 216,000 in 1998 and 260,000 in 2000.

Future Land Use

SR-11 will traverse both the City of San Diego's Otay Mesa Community Plan area and the County of San Diego's East Otay Mesa Specific Plan Area.

The City of San Diego's plan includes 4,337 acres of planned industrial and commercial uses and 2,100 acres of planned residential use.

The County of San Diego's Plan includes 2,372 acres for industrial use, 156 acres for commercial use, and 808 acres for low-density residential uses. The area around the proposed SR-11 in the County Plan area is classified as General Industrial/Support Commercial. Ongoing revisions to the East Otay Mesa Specific Plan may include changes in land use designations.

South of the international border, in the vicinity of the proposed POE, the remaining vacant land in this area is being subjected to heavy pressure from commercial and industrial developers. Annual population growth rates in excess of 5% are expected to occur in this area.

Several specific projects have been approved, proposed or are under consideration for the U.S. side of the border in this area. They include a 172.4 hectare (426 acre) American International Raceway, a 499 hectare (1,233 acre) off highway vehicle park, a 182.1 hectare (450 acre) landfill, an alternative technologies composting site, and a sewage sludge facility.

Regional Growth Management

Concurrent with the release of SANDAG's 2020 Forecast in 1999, the REGION2020 Growth Management Strategy was developed and launched. The Strategy was a first step toward informing elected officials and the general public about growth issues in general and illustrating specific ways that the region could grow in a smarter, more sustainable manner. REGION2020 was never intended to be a one-size-fits-all approach to growth management. It was always recognized that different jurisdictions, and different communities within the jurisdictions, have different needs and priorities.

However, the land use plans and policies within the individual jurisdictions do have a cumulative impact on the region as a whole. REGION2020 is now evolving into the Regional Comprehensive Plan (RCP), which will build upon the Strategy's smart growth goals and principles. It will serve as the framework for strengthening the relationship among local plans and policies and regional plans and policies, and land use and transportation plans and policies. For example, it can help reconcile differences between local plans and regional forecasts, and can provide incentives and other mechanisms to promote transportation networks and designs that enhance local communities. The RCP will result in :

- More competitive transportation choices and reducing the region's dependency on the car
- More compact, walkable, mixed-use development in existing communities
- A greater housing supply
- A more protected environment

Once completed, the RCP can serve as a guide to establish regional priorities, limit urban sprawl, address infrastructure shortfalls, and connect the transportation system. The results will enable the jurisdictions, as well as the region, to proactively plan for change. The RCP will provide the structure for connecting the local land use plans with transportation investments.

Community Planning

Community Planning is an integral part of the 2020 Transportation Concept. With California's burgeoning population, new paradigms for community development and new ways to plan and provide transportation infrastructure and services must be crafted. These tools will enhance effective management of California's transportation system in the coming decades and provide cost-effective infrastructure improvements that promote livable communities.

The purpose of Community Planning is to integrate land use, transportation and community values. Community Planning within Caltrans has several broad goals which include 1) compiling and sharing information regarding community based planning, 2) building and strengthening partnerships to facilitate community based transportation planning approaches at local, regional, and state levels, 3) enhancing the integration of community based planning approaches in Caltrans culture and processes, and 4) providing training, knowledge and tools that facilitate community based planning.

Effective Community Planning allows for the creation of transportation projects that enjoy public support and are easier to develop and deliver because of consistency with community values.

Within Caltrans, the Office of Community Planning includes three functional groups: Intergovernmental Review (IGR)/California Environmental Quality Act (CEQA), Community Based Transportation Planning (CBTP), and Public Participation (PP). These groups share a common theme of linking land use decision-making with transportation planning.

The Otay Mesa Community Planning Group serves the area in the vicinity of the proposed SR-11 corridor.

2020 Transportation Concept

The 2020 Transportation Concept is comprised of the facility type and the number of lanes, average daily traffic, peak hour Volume to Capacity (V/C) Ratio, peak hour Operating Level of Service (LOS), and the Transportation Concept LOS. The 2020 traffic projections for SR-11 assume completion of the future regional transportation system. The 2020 traffic projections are subject to change based on periodic traffic forecasting model adjustments and ongoing supplemental transportation studies.

The 2020 Transportation Concept LOS is based on the 2002 Congestion Management Program Update. The 2020 Transportation Concept is LOS "D" for SR-11. The 2020 Transportation Concept information was shown in Table S-1.

Concept Rationale

SR-11 is expected to reduce congestion at the existing San Ysidro and Otay Mesa POEs. The construction of SR-11 will also facilitate binational access for efficient transportation of goods between San Diego and Tijuana. SR-11 will accommodate future growth in trade and traffic between the U.S. and Mexico, and will also provide an alternative commercial POE to the existing Otay Mesa POE.

A variety of transportation options can complement implementation of these goals.

Highway Component

The State highway component of the 2020 Transportation Concept includes construction of a proposed 4.3 - 5 kilometer (2.7-3.1 mile) four lane freeway that will connect the future SR-125/ SR-905 interchange to Mexico's Tijuana 2000 corridor with direct connections to the Tijuana-Tecate toll road and the free roads, as well as to the Tijuana-Ensenada toll road via the proposed East Otay Mesa POE. Two interchanges are proposed at Enrico Fermi Road and Airway Road. In addition, a truck bypass road between the proposed East Otay Mesa POE and the existing Otay Mesa Commercial Vehicle State Enforcement Facility is included in the 2020 Transportation Concept.

The SANDAG 2030 Mobility Plan lists improvements for State highway routes. It includes a Revenue Constrained Plan, a Mobility Network Plan, and an Unconstrained Revenue Plan. The proposed four lane freeway on SR-11 is included in the Revenue Constrained, Mobility, and Unconstrained Revenue Plans.

The Department is required by legislation to develop a Ten-Year State Highway Operation and Protection Plan. The Plan identifies rehabilitation needs, schedules for meeting those needs, strategies for cost control, and program efficiencies.

Legislation also requires the development of a four-year State Highway Operation and Protection Program (SHOPP). SHOPP projects are limited to capital improvements related to maintenance, safety, and rehabilitation of state highways and bridges. The SHOPP reflects the first four years of the Ten-Year State Highway Operation and Protection Plan.

District 11 also maintains a ten year project specific SHOPP listing.

There are currently no SHOPP projects in the SR-11 corridor.

The State Highway Improvement Program (STIP) is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other sources.

Each new STIP includes projects carried forward from the previous STIP, plus new projects, and cash reserves, from among those proposed by regional agencies in their Regional Transportation Improvement Programs (RTIP). The STIP also includes projects from the Department's Interregional Transportation Improvement Program (ITIP).

Eight million dollars is programmed in the 2002 STIP for Project Approval and the Environmental Document (PA&ED) for contructing the four lane freeway creating SR-11 and the truck bypass route.

Transit Component

In 1993 the Metropolitan Transit Development Board (MTDB) adopted the South Bay Public Transportation Plan and the South Bay Light Rail Transit (LRT) Extension study. As a result of these efforts, the MTDB Board of Directors adopted two light rail alignments in South Bay (Otay Ranch LRT and Otay Mesa LRT) for planning purposes. A 29 mile light rail loop line would connect the existing light rail station at 24th Street in National City with the Otay Ranch area, the Otay Mesa POE and the Iris Street station in San Ysidro. Dedicated right-of-way for an LRT alignment and station sites has been integrated into the design plans for several transit-oriented villages in Otay Ranch, and right-of-way reservations have been incorporated into development agreements along Otay Mesa Road. The alignments and right-of-way have been identified more generally as transitways in SANDAG's 2020 Regional Transportation Plan.

Subsequently, MTDB undertook a two-year

strategic planning process, called Transit Works. This culminated in the adoption of a Transit First strategy in October 2000. During the same time, the North County Transit District (NCTD) developed their strategic business plan known as Fast Forward. MTDB, NCTD, and SANDAG subsequently worked together to develop a strategy in which Transit First and Fast Forward would serve as the foundation for shaping the SANDAG Regional Transit Vision (RTV).

Based on the current RTV, a variety of transit service concepts are proposed for the San Diego region, including Yellow Car, Red Car, Blue Car and Green Car service. All of these services would be connected to each other.

Currently, Red Car Service (Corridor Express Service) is proposed for the SR-905 corridor. It is expected that Red Car service could be provided in the SR-11 corridor. Red Car Service will operate in the existing trolley or light rail corridors and trolley-like service will be expanded into other corridors. Initially, this expanded service will be operated with buses or flextrolleys either on existing or other exclusive rights-of-way.

Since most of the East Otay Mesa area will be developed as an industrial area with large lots and low employment densities, it could be feasible to develop transit circulator or shuttle services that would provide linkage to the future LRT station at the Otay Mesa POE.

System Management and Travel Reduction Component

Arterial Streets - An additional component of the 2020 Transportation Concept includes improvements to the arterial street system in the vicinity of the SR-11 corridor. Arterial street improvements such as additional lanes, preferential signal treatment, limitation and separation of left turn movements, limited driveways, and other access controls should be provided where necessary.

Considering the predicted population and employment growth in Otay Mesa over the next twenty years, the local street network will need to expand to handle the additional traffic. According to the Adopted Circulation Plan Area, the following City of San Diego streets will be upgraded:

- Otay Mesa Road from SR-905 to just west of La Media, 6-lane primary arterial
- Heritage Road from Otay Valley Road to Otay Mesa Road, 6 to 7 lane primary arterial
- La Media from north of county line to Airway, 6-lane primary arterial
- Siempre Viva from Heritage to east of SR-125, 6-lane primary arterial
- Airway Road, Brittania, La Media (south of Airway), and Lonestar are all 4-lane major roads

The City of San Diego is also proposing the construction of additional major roads and collector roads that will provide access to the commercial and industrial centers within the east Otay Mesa area.

All of these street upgrades will be coordinated with development and are not currently programmed for funding.

Additional road improvements south of the proposed East Otay Mesa POE in Mexico include the development of a limited access facility known as the Tijuana 2000 Corridor. This road will connect to the Tijuana-Tecate and Tijuana-Ensenada toll roads.

Value Analysis - Caltrans conducted a study and then prepared the *SR-11/New Otay Mesa East Port of Entry Value Analysis Report (Preliminary, October, 2001)*. The study was developed primarily to focus on how Caltrans will deal with southbound truck traffic traveling to the new East Otay Mesa POE. The Value Analysis (VA) Team came up with five recommendations:

1) Develop an independent truck route along the border to and from the existing Commercial Vehicle Enforcement Facility.

2) Install cameras to monitor both north and southbound queues.

3) Utilize Highway Advisory Radio (HAR) to let travelers know the waiting times at both the Otay Mesa and the East Otay Mesa POE's so they can choose the quickest alternative.

4) Create a public truck stop area so drivers could park their trucks away from the queue while waiting for paperwork.

5) Create a pre-clearance system for cargo movement similar to a Dedicated Commuter Lane (DCL).

Park and Ride- New Park and Ride locations are proposed at four sites if the future area LRT lines are developed:

- Caliente Station
- La Media Station
- Otay Mesa Station (at the juncture of an east/west LRT line along Otay Mesa Road and a north/south LRT line long SR 125)
- Lonestar Station (north of Otay Mesa Station, on the LRT line running along SR-125)

Non-Motorized Component

Each segment of SR-11 will be classified as freeway, which prohibits bicycle or pedestrian travel. California Vehicle Code 21200 states all roads in California, except those designated as freeways, are open to bicyclists unless there is a resolution passed to post them closed.

As the SR-11 freeway and many adjacent local roads are currently unconstructed, it is important to ensure that bicycle and pedestrian travel is accommodated throughout the vicinity.

It is expected that bicycle travel will continue to be accommodated on bike lanes and bike routes parallel to SR-11. Pedestrian travel should also be accommodated on roads and paths parallel to SR-11. Further, the proposed East Otay Mesa POE should accommodate those crossing the border on bicycle, or as pedestrians, in both directions. Currently, the Otay Mesa POE has adequate pedestrian crossing facilities, while bicycle traffic utilizes vehicle inspection lanes. There is a significant volume of both pedestrian and bicyclist border crossings at the Otay Mesa POE, and a similar volume may be expected at the proposed East Otay Mesa POE. The local roads, which will be designed to handle large volumes of truck traffic, should also include adequate facilities for bicycles and pedestrians.

There are several proposed interchanges and crossings for SR-11, which will provide non-motorized access across the State facility. Projects providing improvement to the interchanges are required to maintain and improve non-motorized facilities and access, according to Deputy Directive 64, Accommodating Non-Motorized Travel. Some of these projects include the SR-11/Via de la Amistad crossing, the SR-11/Airway Road interchange, the SR-11/Alta Road crossing, the SR-11/Enrico Fermi Drive interchange, the SR-11/Paseo de Las Americas crossing, and the SR-11/Sanyo Avenue crossing. There is a significant opportunity to provide good regional and international connectivity for bicycle and pedestrian traffic by including well-planned non-motorized facilities around SR-11 and the East Otay Mesa POE. Developing these facilities around SR-11 would involve coordination between the Department, the City of San Diego and the County of San Diego.

Intelligent Transportation System (ITS) Component

New methodologies can assist in providing better management of future transportation systems. Advanced technology research is one tool that can be used to enhance management of the transportation system. Under the Intermodal Surface Transportation Efficiency Act (ISTEA), the Intelligent Vehicle Highway System (IVHS) Program identified four transportation corridors in the nation to showcase coordinated intelligent transportation system elements. Congress established the ITS Corridors Program to: (1) provide multiyear funding for showcasing ITS applications and benefits, (2) establish national ITS test beds, (3) advance ITS strategic planning, (4) leverage federal aid and other funding sources, (5) expose the public to the potential benefits of ITS , and (6) evaluate ITS technologies.

ITS activities in the San Diego region include innovative use of the existing solar powered freeway call box infrastructure, the development of a multifunctional/multimodal Transportation Management Center in Kearny Mesa, the provision of automated traffic operation information to fleet operators in the goods movement, transit, and hazardous material industries, and the development of an IVHS International Border Crossing Operations Strategic Plan. Additional IVHS technologies

that could be utilized in the San Diego region include vehicle navigation systems, computerized roadway sensors, changeable message signs, television roadway monitoring devices, smart car sharing systems, and advanced highway maintenance and construction technology.

The Secure Electronic Network for Traveler's Rapid Inspection (SENTRI) Program, a National Performance Review Program, is deploying Dedicated Commuter Lanes (DCLs) and Exit Control Systems (ECSs) at Otay Mesa, San Ysidro, El Paso, Hidalgo, Calexico and other southwest international POEs. Both DCLs and ECSs utilize automated vehicle identification for positive identification of vehicles.

The two San Ysidro Dedicated Commuter Lanes (DCLs) have been operational since September 2000. Otay Mesa has one DCL and work is underway to upgrade that system to the standard configuration.

United States, Canada and Mexico developed the North American Trade Prototype (NATAP) to streamline the customs clearance of commercial goods across the border. NATAP was deployed at six sites, including Otay Mesa, in 1998. Successful aspects of NATAP have been incorporated into mainstream U.S. Customs procedures for the exchange of information between traders, carriers, brokers and Customs. The program has been so successful that additional x-ray equipment and personnel are being sought by the Federal Inspection Services (FIS).

Many of these new technologies could be implemented for SR-11 and the new East Otay Mesa POE.

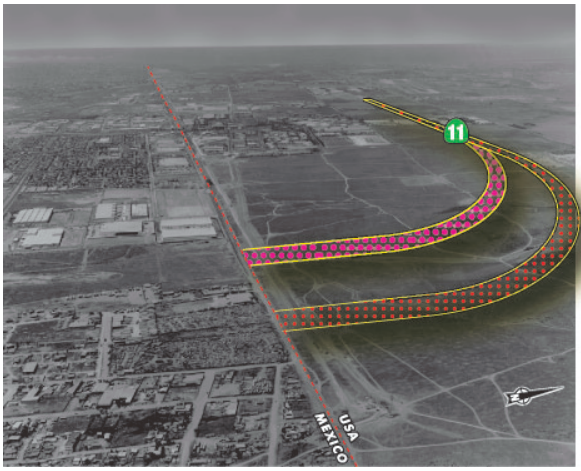
Goods Movement Component

The passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 created additional emphasis being placed on the movement of goods in an integrated transportation network. It is essential to identify critical elements within major goods movement corridors in order to develop effective strategies for managing, maintaining and improving transportation system connectivity. Goods movement planning incorporates analysis of impacts on noise, air quality, land use, congestion, safety, and can have a significant economic impact on the regional economy. The Transportation Equity Act for the 21st Century (TEA-21) builds on the initiatives established in ISTEA, authorizing highway, highway safety, transit and other surface transportation programs for the years 1998-2003.

With the implementation of the North American Free Trade Agreement (NAFTA) in 1992, increased freight movement has impacted the region's transportation network. Truck traffic between San Diego and Tijuana is currently processed only at Otay Mesa. The number of truck crossings in 1994 was about 850,000 (two-way). In 1999, truck crossings were nearly 1.3 million (two-way). This international truck traffic has local, State, national and international origins and destinations. Consequently, the construction of SR-11 and the East Otay Mesa POE has state, national, and international significance.

Trends indicate that this traffic will reach between 2.1 and 2.9 million trucks by 2010 and between 2.9 and 4.5 million trucks by 2020 (two-way traffic), depending on the performance of the economies of both the U.S. and Mexico.

Since the majority of the east Otay Mesa area will be developed for industrial land uses, it is expected that both SR-11 and the arterial street network will carry a substantial amount of locally generated commercial vehicle traffic in addition to the cross border truck traffic. The SR-11 interchanges at Airway Road and Enrico Fermi



Drive should be designed to accommodate the large turning radii and other operational requirements of large trucks. The arterial street system should be designed with wider lanes for trucks. Proposed developments should provide off -street truck and trailer parking provisions. Specific designated truck routes should be developed for the expected high volume of commercial truck traffic.

International Border Component

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 required studying the advisability of establishing a discretionary international border crossing program and the development of a multimodal assessment of existing and emerging international trade corridors within Canada, Mexico and the United States. TEA-21 has complemented initiatives from the original act and has improved in areas to address safety, economic competitiveness and international trade. A total of $700 million will be spent through the 2003 fiscal year on coordinated planning, design and construction of corridors of national significance, economic growth, and international and interregional trade.

Besides easing congestion at the San Ysidro and Otay Mesa POE's, SR-11 will serve as an alternate route for traffic currently crossing at the Tecate POE. Trucks crossing at the Tecate POE must traverse miles of out-of-direction travel on a portion of SR-94 that is a two lane highway through mountainous terrain.

The development of SR-11 and the East Otay Mesa POE has extensive local, regional, State, and national support. The project has ongoing binational collaboration through the Bi-State Transportation Technical Advisory Committee, which has six state, regional and local representatives from Mexico and six from the U.S. In addition, the project is supported and monitored by the U.S.-Mexico Joint Working Committee, comprised of the four U.S. border states and the six Mexican border states, plus the U.S. Departments of Transportation and State and their Mexican counterparts.

Aviation Component

The aviation component for SR-11 includes two airports within the Otay Mesa area. Brown Field is a commercial airport providing private aircraft service, including air freight, avionics, air cargo, charters, flight instruction, skydiving, aircraft rental and sales. Brown Field is located to the north of the SR-905 corridor with direct access to Otay Mesa Road (interim SR-905). In 1998, Brown Field had 94,900 takeoffs and landings, and 165 aircraft based at the field. The current capacity of Brown Field is 258 aircraft parking spaces. Brown Field has two runways, one of which is the third longest runway in the area (after the General Abelardo L. Rodriguez International Airport (TIJ) in Tijuana and Lindbergh Field). Airport operations are expected to increase as operations at the remaining airports in the area run out of facility capacity.

TIJ currently has only one runway for large aircraft but handles 3-4 million passengers annually. Approximately 33% of the total passenger traffic at TIJ originates in the U.S. and many of these passengers access the airport via the Otay Mesa POE.

There has been discussion regarding the conversion of Brown Field to a cargo airport, however, the San Diego City Council voted to deny the application.

The discussion of a cross-border terminal, with TIJ connecting to a terminal on the U.S. (Otay Mesa), side, is ongoing.

Tourism Component

Tourism will continue to have a major impact on California, including the San Diego-Tijuana border region. The California Department of Tourism estimates that recreational activities and the travel industry generate $55.2 billion dollars per year and sustain 700,000 jobs statewide, which makes California first in the nation for visitors and earnings. California generated over 250 million person trips in 1998 of which San Diego received over 30 million person trips. Based on a survey by San Diego Dialogue in 1994, 23% of the total trips crossing the border from the U.S. to Mexico in the San Diego/Tijuana region are for tourism

purposes. It is expected that SR-11 will carry some tourist and recreational traffic and relieve congestion at the tourist-heavy San Ysidro POE.

Environmental Component

Issues of primary concern in the SR-11 corridor are anticipated to be: impacts to natural resources (vernal pools, wetlands, threatened and endangered species and their habitat), hazardous waste, cultural resources, paleontology, water quality, and visual impacts. Issues of a somewhat lesser concern may include: floodplain development, noise, air quality, land use and community impacts. Preliminary environmental constraint studies indicate that there is the potential for the presence of highly sensitive biological resources. The areas further to the east have a greater likelihood of natural resources occurring.

These issues will need to be reviewed in greater detail during the environmental process. The Environmental Impact Report/Environmental Impact Statement (EIR/EIS) has been initiated for SR-11 and the new East Otay Mesa POE.

Air Quality Conditions

SR-11 is located in the San Diego Air Basin. Progress has been made in attaining federal and State air quality standards. Federal and State standards have been met for lead, nitrogen dioxide, sulfur dioxide, and carbon monoxide (CO). The western two-thirds of the air basin is federally designated as a maintenance area for CO. Federal standards are being met for inhalable particulates labeled as PM_{10}. State standards for PM_{10} have not been met.

In October 2002, the Environmental Protection Agency issued a finding that the San Diego area had attained the one-hour ozone National Ambient Air Quality Standards (NAAQS) by the applicable attainment deadline of November 15, 2001.

In December 2002, the San Diego Air Pollution Control District (SDAPCD) adopted the "Ozone Redesignation Request and Maintenance Plan for San Diego County". Also in December 2002, the California Air Resources Board (CARB) submitted this Maintenance Plan to the EPA with a request that they approve the plan and redesignate San Diego to attainment for the one-hour ozone NAAQS.

The new federal eight-hour ozone standard was passed into law in 1997. The U.S. EPA is required to designate eight-hour ozone nonattainment areas by April 15, 2004. At the time of this writing, it is not likely that the San Diego region will be able to attain the new eight-hour standard. Eight hour ozone State Implementation Plans will be due starting in 2007.

The new federal $PM_{2.5}$ standard was also enacted in 1997. The implementation schedule is expected to parallel that of the eight-hour ozone standard.

The Air Resources Board (ARB) is currently preparing the CO Maintenance Plan update. Adoption is expected by summer 2004.

2020 Transportation Concept Facility Improvements

This report discusses the proposed construction of SR-11, a new four lane facility beginning at the SR-125/SR-905 interchange and connecting to the proposed East Otay Mesa Port of Entry (POE). In addition, a truck bypass road between the proposed East Otay Mesa POE and the existing Otay Mesa Commercial Vehicle State Enforcement Facility is also proposed.

Project Study Report (PSR) level studies began in October 2000. A decision on the application for a new land port of entry at East Otay Mesa is anticipated to coincide with environmental clearance. The environmental study phase of this project has been initiated. The design and right-of-way acquisition phases of proposed SR-11 would take approximately three years, although a portion of this work may be concurrent with the environmental process phase. Construction of SR-11 would take approximately another two to three years.

Post 2020 Ultimate Transportation Corridor

The post-2020 Ultimate Transportation Corridor (UTC) describes the long-term (beyond the 20-year planning period) right of way requirements for a particular segment. The UTC proposes the number of lanes and facility type for SR-11. The UTC is the same as the 2020 Transportation Concept. Additional improvements could be considered in the future based on additional studies.

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ADT	Average Daily Traffic
CO	Carbon Monoxide
CTC	California Transportation Commission
DCL	Dedicated Commuter Lane
ECS	Exit Control Systems
EIR/EIS	Environmental Impact Report/Environmental Impact Statement
FIS	Federal Inspection Services
HAR	Highway Advisory Radio
ICES	Intermodal Corridors of Economic Significance
ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	Intelligent Transportation Systems
IVHS	Intelligent Vehicle Highway System
LOS	Level of Service
LRT	Light Rail Transit
MSL	Maintenance Service Level
MTDB	Metropolitan Transit Development Board
NAFTA	North American Free Trade Agreement
NATAP	North American Trade Prototype
NCTD	North County Transit District
NHS	National Highway System
PM	Post Mile
PM_{10}	Inhalable Particulate Matter
POE	Port of Entry
PR	Project Report
PSR	Project Study Report
RTV	Regional Transit Vision
SANDAG	San Diego Association of Governments
SENTRI	Secure Electronic Network for Traveler's Rapid Inspection
SRA	Subregional Area
STAA	Surface Transportation Assistance Act
TCR	Transportation Concept Report
TEA-21	Transportation Equity Act for the 21st Century
TMC	Transportation Management Center
UTC	Ultimate Transportation Corridor
VA	Value Analysis
V/C	Volume to Capacity

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I approve this Transportation Concept Report as the guide for development of State Route 11 over the next 20 years.

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